Project documentation:

What is its purpose?

The purpose of my project is to provide a visualization about covid, the number of cases and deaths associated with it, how different countries are doing on selected days and how government measures were used and their effectiveness.

Data description:

I used 2 data sets for my visualizations. First was all the information you would ever want to know about covid. This data, collected by John’s Hopkins, includes information such as covid cases and deaths, vaccination rates, and infinitely more data such as population density, age of a country’s population, diabetes prevalence and more. I primarily focused on cases, deaths and vaccination rates in my project.

The other data set I used was about all the government measures used because of covid. This is information such as border closures, mask mandates, and surveillance. This would include which country used these measures, and when they were phased in and phased out.

How was the data collected?

The covid data comes from WHO, who kept very good track of covid over the last 2 years. The measures data was collected by The Oxford Covid-19 Government Response Tracker who got information from any source available (laws, news and even facebook).

Who are the users that this visualization was made for?

The visualizations are made for lawmakers who want to know how effective different measures were, people who want to see how covid worked over time, and anyone who was generally curious about how different countries handled covid during different intensities of covid.

What questions are you trying to answer? What works?

I am trying to answer 3 questions: How did covid trend in different countries over time? When were different government measures put into place? How effective were different government measures?

What insights did you get from your data?

What I learned is that it is difficult to determine the effectiveness of government measures. Many measures were put in in response to a big uptick in cases, and sometimes covid leveled off after those measures and sometimes it kept rising. Most measures had varied effects as well, even within countries. For example, closing borders in Italy had no effect the first time it was done but did seem to lower the number of new cases the second time it was done about a year later.

What needs improvement?

The government data is not perfect and could be improved.

Sources or References (with appropriate credits)

https://www.r-graph-gallery.com/279-plotting-time-series-with-ggplot2.html

https://campus.datacamp.com/courses/free-introduction-to-r/chapter-6-lists?ex=6

https://mastering-shiny.org/ (lots of help for all of shiny)

https://stackoverflow.com/questions/40908808/how-to-sliderinput-for-dates

https://www.datanovia.com/en/blog/ggplot-legend-title-position-and-labels/#change-legend-title

Covid data from: https://raw.githubusercontent.com/owid/covid-19-data/master/public/data/owid-covid-data.csv

government measures data from https://github.com/OxCGRT/covid-policy-tracker

https://statisticsglobe.com/change-formatting-of-numbers-of-ggplot2-plot-axis-in-r

https://www.datanovia.com/en/lessons/rename-data-frame-columns-in-r/

https://bookdown.org/dli/rguide/scatterplots-and-best-fit-lines-two-sets.html